

**Office Action Summary**

Application No.

09/684,230

Applicant(s)

STONE, JEFFREY W.

Examiner

Daniel J. Jenkins

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12, 16 and 18-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 16 and 18-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 5) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 6) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

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1. The Examiner has carefully considered Applicant's Request for Reconsideration of 8/18/03, but does not find Applicant's argument persuasive. In particular, Benini specifically addresses the selection of non-lead constituents so as to form a projectile that is environmentally safe (see col. 1, lines 47-52). Additionally, the density of Fe is 7.86g/ml, the density of Pb is 11.4g/ml, of which the Examiner takes notice.

At this time, the Examiner makes an additional rejection based on USC 112 that goes to a typo in claim 12 which recites the range twice and at two different ranges, this new rejection not going to the merits of the art rejection, accordingly not affecting making this Action Final.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-10, 12, 16 and 18-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benini.

Benini discloses the invention substantially as claimed. Benini discloses a projectile comprising an admixture of metal powders, wherein said admixture comprises:

a first metal powder selected from a first group comprising Cu, Fe, Ni, Au, Ag, Pb, Cr and their alloys (col. 2, lines 63-65);

a second metal powder selected from a second group comprising Sn, Zn, Ga, Ge, Si, Ar, Al, In, An, Pb, Bi and their alloys (col. 3, lines 1-3).

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Benini further discloses wherein his projectile is formed of unsintered metal particles in an intermetallic brittle metal binder (col. 4, lines 49-55).

Benini further discloses wherein the projectile may be fully dense or porous (col. 5, lines 43-50).

Benini further discloses examples with projectile density ranging from 6.53 g/cc to 7.27 g/cc (0.236 lb/in<sup>3</sup> to 0.263 lb/in<sup>3</sup>) (col. 7, lines 31-38).

Benini further discloses an example wherein the powder size broadly overlaps that as claimed by Applicant (see Example 1), and leaves the general disclosure to one of ordinary skill in the art to select powder size based on the desired degree of frangibility. The Examiner finds that the selection of combinations from the small group of metals listed as first and second metal powders would result in densities within that claimed by Applicant, additionally providing motivation to modify density base on material selection to be compatible with desired ballistics (see col. 2, lines 5-19).

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites two ranges of density, less than 80% and less than 70%, which appears to be a typo, the Examiner considering both the higher and lower limits in his rejection in paragraph 3 above.

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6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Jenkins whose telephone number is 703-306-4157. The examiner can normally be reached on M-TH 6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

  
Daniel J. Jenkins  
Primary Examiner

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28 October 2003